

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number
WO 2005/012039 A2

(51) International Patent Classification⁷: **B60R 11/00**

(21) International Application Number:
PCT/US2004/023388

(22) International Filing Date: 20 July 2004 (20.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/491,339 30 July 2003 (30.07.2003) US

(71) Applicant (for all designated States except US): **JOHNSON CONTROLS TECHNOLOGY COMPANY [US/US]**; 650 Waverly, Holland, MI 49423 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KALIS, Matthew, A.** [US/US]; 3703 Black Creek Drive, Hudsonville, MI 49426 (US). **KADZBAN, Mark, P.** [US/US]; 304 Maier Court, Grandville, MI 49418 (US). **ANDERSON, Kermit** [US/US]; 290 Sandy Court, Holland, MI 49424 (US). **JONES, Bryan, T.** [US/US]; 1361 Spinnaker Court, Holland, MI 49424 (US).

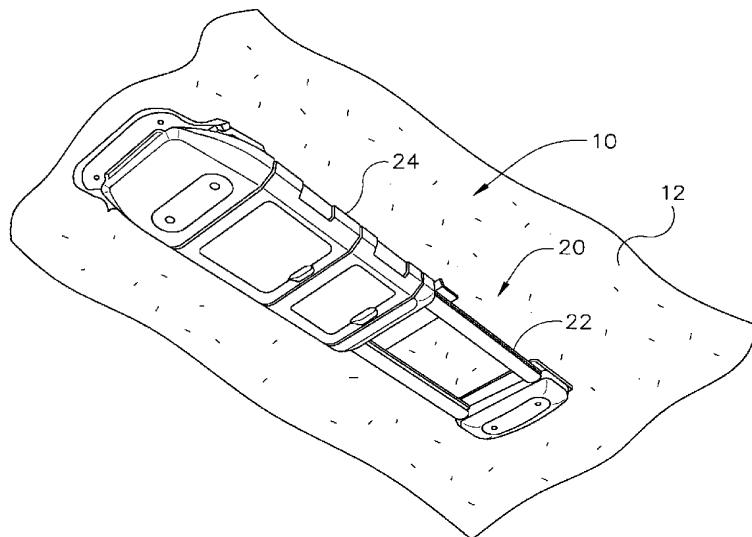
(74) Agent: **LAZARUS, John, M.; FOLEY & LARDNER LLP**, 777 East Wisconsin Avenue, Suite 3800, Milwaukee, Wisconsin 53202-5306 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: POSITIONING SYSTEM FOR MODULES IN A VEHICLE



WO 2005/012039 A2

(57) Abstract: A positioning system for coupling a module to a rail member on an interior portion of a vehicle is disclosed and includes a rail with a flange member having positioning openings. The module includes at least one projection configured to engage the openings when the module is attached to the rail system so that movement of the module in a direction parallel to the rail system is substantially prevented. A positioning system is also disclosed for limiting movement of a module attached to a rail system within a vehicle interior during changes in vehicle speed or direction. The module includes at least one brake member coupled to the module and configured to coact with a rail so that movement of the module relative to the rail causes the brake member to frictionally engage the rail to substantially limit movement of the module along the rail.



Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.